CDM
125 South Wacker Drive, Suite 600
Chicago, Illinois 60606
tel: 312 346-5000
fax: 312 346-5228

March 18, 2004

Mr. Thomas Williams
Illinois Environmental Protection Agency
12 Gunia Drive
LaSalle, IL 61301

Subject: 2010300074 - Winnebago County
Source Area 4 Remedial Alternative Pros and Cons
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Winnebago County, Illinois
Superfund/Technical

Dear Mr. Williams:

As per your request, Camp Dresser & McKee (CDM) has compiled a list of pros and cons of the currently selected remedial alternative for Area 4 of excavation and low-temperature thermal desorption (LTTD) of impacted soils. In determining the pros and cons for this remedy, CDM has considered the recent preliminary findings of the Area 4 pre-design field work and the current business operating at the site.

Area 4 Soil Excavation and LTTD - Pros

The following items are advantages associated with the current soil excavation and LTTD remedy:

- Accessible source is removed within timeframe on the order of months
- Source material removed through treatment is near 100%
- Vendors capable of treating soils via LTTD mobile, on-site systems are readily available

Area 4 Soil Excavation and LTTD - Cons

The following items are disadvantages associated with the current soil excavation and LTTD remedy:

- Some source material is inaccessible (under building) and will require alternate remediation

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- Pallet business activities will be severely affected within a timeframe on the order of months
- Logistically challenging, especially considering space limitations and the volume of soil to be excavated and treated along with equipment staging areas
- Treated material will require storage onsite while subsequent material is being excavated and treated
- Inclement weather could cause major delays and problems
- Remedy is relatively inflexible to expansion change in the field due to space limitations and risk to existing building
- Where the excavation extends within the zone of influence of the adjacent building, defined as a 1 vertical to 1 horizontal line drawn outward and downward from the edge of the foundation (e.g., a 13-foot deep excavation if the foundation is 4-feet deep and 9-feet away), special sheeting techniques will be required; where that excavation extends below a line drawn 2 vertical to 1 horizontal (22-foot deep excavation for the same conditions above), sheeting may no longer be adequate to support the building and underpinning of the building may be required to avoid intolerable movements
- Excavation, which will be to a depth of 37 feet, will require special sheeting and bracing systems that are time consuming and expensive to install
- To achieve an open excavation, free of cumbersome cross-lot bracing, tiebacks will be needed which would have to extend under the building and possibly beyond other property bounds on the site; special permitting to install tiebacks will be required
- Cross lot bracing, if used to avoid tie backs, will require special excavation techniques which will require double handling of material within the excavation
- Driving sheeting at the site will cause noise and vibrations which may be objectionable to nearby occupants; in addition, vibrations would have to be analyzed so as not to cause damage to surrounding properties
- Sheeting prohibits extending excavation to pursue contaminated soils outside of the set excavation, or even to confirm conditions in sidewall of excavation beyond the limits of the sheeting.

- Pulling sheeting after the completion of backfilling and compaction will be difficult and could cause damage to surrounding buildings and utilities. Normally sheeting driven within the 1 vertical to 1 horizontal zone of influence is left in place. Leaving sheeting in place could potentially cause obstruction to future use of the site utilities and can sometimes create a barrier to normal groundwater flow. Studies to determine redirected groundwater flow patterns will be necessary prior to installation of leachate extraction wells.

- Once sheeting is removed, it will have to be decontaminated

- Significant continuous dewatering efforts will be required during the period where the excavation is open below the groundwater level

CDM can provide similiar pros and cons of other potential Area 4 soil remedies at your request. If you have any questions about the information presented herein, please contact me at (312) 251-8337.

Sincerely,

John Grabs, P.G.
Project Manager
Camp Dresser & McKee Inc.

cc: Terry Ayers, Illinois EPA
Russ Hart, USEPA
File, IEPA BOL